A

Treatment Manual

Appendix A

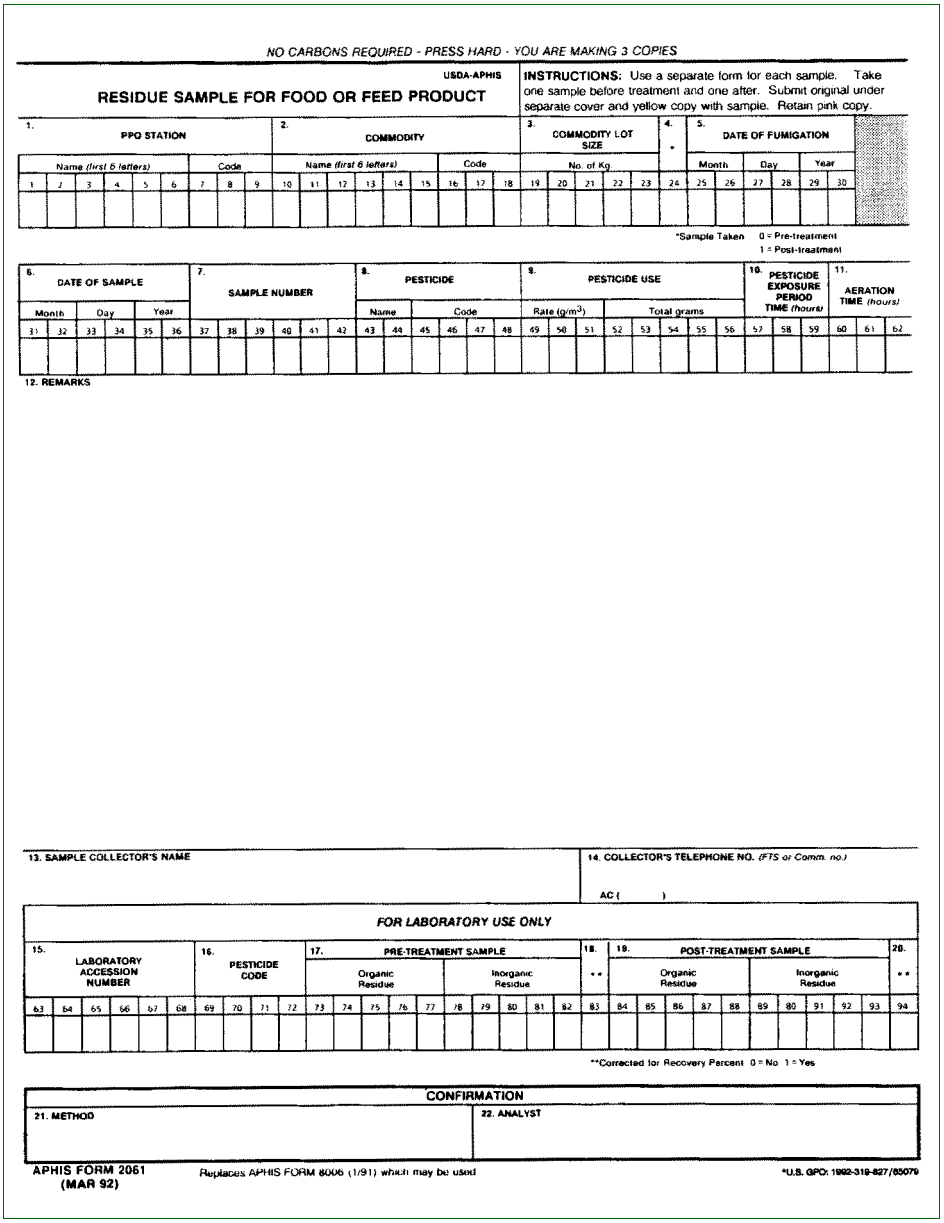
Forms

Contents

This Appendix contains example forms and instructions for completing the forms you may need when conducting or monitoring a fumigation.

APHIS Form 2061 (Residue Sample for Food or Feed Product)

Example



NO CARBONS REQUIRED - PRESS HARD - YOU ARE MAKING 3 COPIES

USDA-APHIS

RESIDUE SAMPLE FOR FOOD OR FEED PRODUCT

INSTRUCTIONS: Use a separate form for each sample. Take one sample before treatment and one after. Submit original under separate cover and yellow copy with sample. Retain pink copy.

1. PPQ STATION									2. COMMODITY									3. COMMODITY LOT SIZE					4. *	5. DATE OF FUMIGATION					
Name (first 6 letters)						Code			Name (first 6 letters)						Code			No. of Kg						Month		Day		Year	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

*Sample Taken 0 = Pre-treatment 1 = Post-treatment

6. DATE OF SAMPLE						7. SAMPLE NUMBER						8. PESTICIDE						9. PESTICIDE USE							10. PESTICIDE EXPOSURE PERIOD TIME (hours)			11. AERATION TIME (hours)		
Month		Day		Year								Name			Code			Rate (g/m^3)			Total grams								
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62

12. REMARKS

13. SAMPLE COLLECTOR'S NAME

14. COLLECTOR'S TELEPHONE NO. (FTS or Comm. no.)

AC ( )

FOR LABORATORY USE ONLY

15. LABORATORY ACCESSION NUMBER						16. PESTICIDE CODE				17. PRE-TREATMENT SAMPLE									18. **	19. POST-TREATMENT SAMPLE									20. **
										Organic Residue					Inorganic Residue					Organic Residue					Inorganic Residue				
63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	80	91	92	93	94

**Corrected for Recovery Percent 0 = No 1 = Yes

CONFIRMATION	
21. METHOD	22. ANALYST

APHIS FORM 2061 (MAR 92)

Replaces APHIS FORM 8006 (1/91) which may be used

*U.S. GPO: 1992-319-827/85079

FIGURE A-1-1: Example of APHIS Form 2061 (Residue Sample for Food or Feed Product)

Purpose

This form is used to provide information on samples of food and feed products sent to the National Monitoring Residue and Analysis Laboratory (NMRAL) for residue analysis (see the following distribution for address). This form provides information on the commodity and the fumigation performed under a FIFRA Section 18 quarantine exemption.

Instructions

Block Number	Instruction
1 Code	Fill in the first six letters of your location. Enter one of the following: 551 for Funded Program Support (regular time) 552 for Reimbursable Program Support (overtime)
2 Code	Fill in the first six letters of the commodity. see the list of codes beginning on page-A-1-3. If there is no code, describe commodity in Remarks.
3	Fill in number of kilograms of shipment.
4	Fill in "0" for pre-treatment and "1" for post-treatment sample.
5	Fill in numbers for day, month, and year.
6	Fill in date sample was taken.
7	Fill in sample number (you assign a number).
8 Code	For methyl bromide, enter MEBR.
9	Fill in dosage rate in grams/cubic meter. Fill in dosage (total amount of fumigant) in grams.
10	Fill in number of hours of exposure.
11	Fill in number of hours for aeration.
12	Fill any remarks.
13	Print your name.
14	Fill in your office telephone number. Use the commercial number.

Distribution

TABLE A-1-1: Distribution of APHIS Form 2061

If:	Then:
Original	Send under separate cover to NMRAL
Yellow copy	Mail to NMRAL with sample
Pink copy	Keep for your files

NMRAL Address:

National Monitoring Residue and Analysis Laboratory
P.O. Box 3209
Gulfport, MS 39505
Phone: (601) 863-8124
Fax: (601) 867-6130

TABLE A-1-2: Root and Tuber Vegetables

Codes	
001	Beet
002	Carrot
003	Dasheen (taro)
004	Horseradish
005	Jerusalem artichoke
006	Parsnip
007	Potato
008	Radish
009	Rutabaga
010	Sugar beet
011	Sweet potato
012	Turnip
013	Yams
019	Other roots and tubers

TABLE A-1-3: Leaves of Root and Tuber Vegetables

Codes	
020	Beet
021	Carrot
022	Turnip
023	Dasheen (taro)
024	Parsnip
025	Rutabaga
026	Sugar beet
039	Leaves of other roots and tubers

TABLE A-1-4: Bulb Vegetables

Codes	
040	Garlic
041	Leek
042	Onion
043	Shallot
049	Other bulb vegetables

TABLE A-1-5: Leafy Vegetables (Other Than *Brassica*)

Codes	
050	Celery
051	Corn salad
052	Dandelion
053	Endive
054	Garden cress
055	Lettuce
056	Spinach
057	Rhubarb
058	Parsley
059	Swiss chard
069	Other leafy vegetables

TABLE A-1-6: *Brassica* (Cole) Leafy Vegetables

Codes	
070	Broccoli
071	Brussels sprout
072	Cabbage
073	Chinese cabbage
074	Cauliflower
075	Collard
076	Kale
077	Kohlrabi
078	Mustard greens
079	Rape greens
089	Other *Brassica* leafy vegetables

TABLE A-1-7: Legume Vegetables

Codes	
090	Beans
091	Peas
092	Lentils
093	Soybeans
094	Fava beans
099	Other legume vegetables

TABLE A-1-8: Foliage of Legume Vegetables

Codes	
100	Beans
101	Peas
102	Soybeans
109	Foliage of other legume vegetables

TABLE A-1-9: Fruiting Vegetables Except Cucurbits

Codes	
110	Eggplant
111	Pepinos
112	Pepper
113	Pimentos
114	Tomatoes
119	Other fruiting vegetables except cucurbits

TABLE A-1-10: Fruiting Vegetables (Cucurbits)

Codes	
120	Citron melon
121	Cucumber
122	Gherkins
123	Melons (includes cantaloupe and muskmelon)
124	Pumpkin
125	Squash
126	Watermelon
139	Other fruiting vegetables (cucurbits)

TABLE A-1-11: Citrus Fruits

Codes	
140	Calamondin
141	Citrus citron
142	Grapefruit
143	Lemon
144	Lime
145	Mandarin
146	Orange
159	Other citrus fruits

TABLE A-1-12: Pome Fruits

Codes	
160	Apple
161	Crab apple
162	Loquat
163	Pear
164	Quince
179	Other pome fruits

TABLE A-1-13: Stone Fruits

Codes	
180	Apricot
181	Cherry
182	Nectarine
183	Peach
184	Plum
185	Prune
199	Other stone fruits

TABLE A-1-14: Small Fruits and Berries

Codes	
200	Blackberry
201	Blueberry
202	Boysenberry
203	Cranberry
204	Currant
205	Dewberry
206	Elderberry
219	Other small fruits and berries

TABLE A-1-15: Cereal Grains

Codes	
220	Barley
221	Buckwheat
222	Millet
223	Oats
224	Popcorn
225	Rice
226	Rye
227	Sorghum
228	Teosinte
229	Triticale
230	Wheat
231	Wild rice
232	Corn
239	Other cereal grains

TABLE A-1-16: Forage, Fodder, and Straw of Cereal Grains

Codes	
240	Barley
241	Corn
242	Sorghum
243	Wheat
259	Other forage, fodder, and straw

TABLE A-1-17: Grass Forage, Fodder, and Hay

Codes	
260	Bermuda grass
261	Bluegrass
262	Fescue
279	Other grass forage

TABLE A-1-18: Nongrass Animal Feeds

Codes	
280	Alfalfa
281	Clover
282	Sainfoin
283	Trefoil
284	Vetch
299	Other nongrass animal feed

TABLE A-1-19: Tree Nuts

Codes	
300	Almond
301	Beechnut
302	Brazil nut
303	Butternut
304	Cashew
305	Chestnut
306	Filbert
307	Hickory
308	Macadamia nut
309	Pecan
410	Walnut
419	Other nuts

TABLE A-1-20: Herbs and Spices

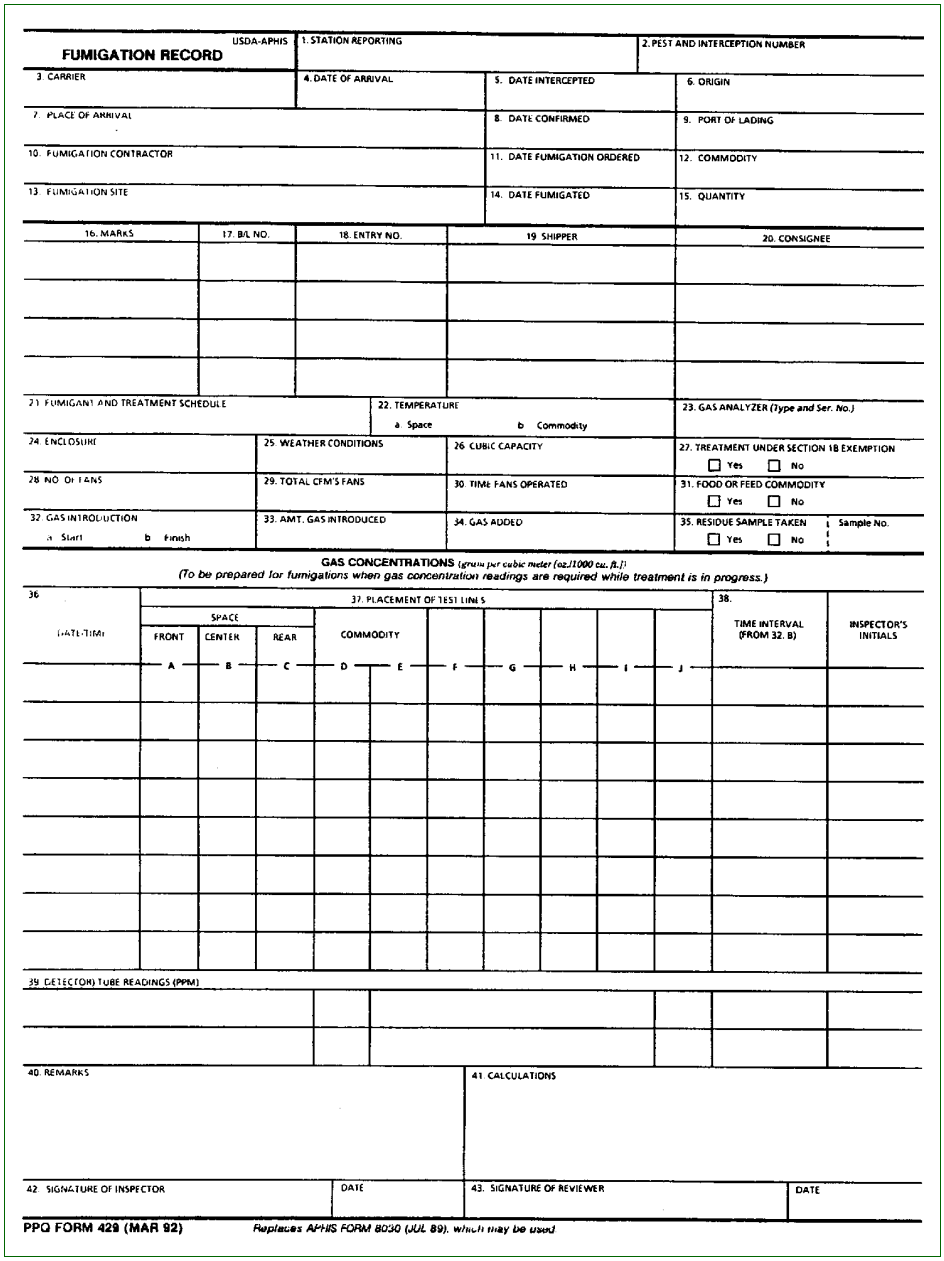
Codes	
420	Anise
421	Borage
422	Basil
423	Camomile
425	Catnip
426	Chives
427	Curry
428	Dill
429	Fennel
430	Horehound
431	Lavender
432	Marigold
433	Marjoram
434	Pennyroyal
435	Rosemary
436	Sage
437	Savory
438	Sweet bay
439	Tansy
440	Tarragon
441	Thyme
442	Woodruff
443	Wormwood
449	Other herbs and spices

TABLE A-1-21: Miscellaneous Fruits

Codes	
500	Kiwi
503	Avocado

PPQ Form 429 (Fumigation Record)

Example



FUMIGATION RECORD — USDA-APHIS

1. STATION REPORTING		2. PEST AND INTERCEPTION NUMBER
3. CARRIER	4. DATE OF ARRIVAL	5. DATE INTERCEPTED	6. ORIGIN
7. PLACE OF ARRIVAL		8. DATE CONFIRMED	9. PORT OF LADING
10. FUMIGATION CONTRACTOR		11. DATE FUMIGATION ORDERED	12. COMMODITY
13. FUMIGATION SITE		14. DATE FUMIGATED	15. QUANTITY

16. MARKS	17. B/L NO.	18. ENTRY NO.	19. SHIPPER	20. CONSIGNEE

21. FUMIGANT AND TREATMENT SCHEDULE	22. TEMPERATURE a. Space b. Commodity	23. GAS ANALYZER (Type and Ser. No.)
24. ENCLOSURE	25. WEATHER CONDITIONS	26. CUBIC CAPACITY	27. TREATMENT UNDER SECTION 18 EXEMPTION ☐ Yes ☐ No
28. NO. OF FANS	29. TOTAL CFM'S FANS	30. TIME FANS OPERATED	31. FOOD OR FEED COMMODITY ☐ Yes ☐ No
32. GAS INTRODUCTION a. Start b. Finish	33. AMT. GAS INTRODUCED	34. GAS ADDED	35. RESIDUE SAMPLE TAKEN ☐ Yes ☐ No — Sample No.

GAS CONCENTRATIONS *(gram per cubic meter (oz./1000 cu. ft.))*
(To be prepared for fumigations when gas concentration readings are required while treatment is in progress.)

36. DATE-TIME	37. PLACEMENT OF TEST LINES: SPACE FRONT A	SPACE CENTER B	SPACE REAR C	COMMODITY D	COMMODITY E	F	G	H	I	J	38. TIME INTERVAL (FROM 32. B)	INSPECTOR'S INITIALS

39. DETECTOR TUBE READINGS (PPM)					

40. REMARKS	41. CALCULATIONS

42. SIGNATURE OF INSPECTOR	DATE	43. SIGNATURE OF REVIEWER	DATE

PPQ FORM 429 (MAR 92) *Replaces APHIS FORM 8030 (JUL 89), which may be used*

FIGURE A-1-2: Example of PPQ Form 429 (Fumigation Record) (Front)

Example (Reverse)

TARPAULIN FUMIGATION

NOTE: ***In preparation for the fumigation and prior to site selection the officer should have determined (1) the immediate pest risk associated with the infested commodity, (2) the temperature requirements for the fumigation, and (3) the permeability of the packaging.***

CHECKLIST OF MATERIALS AND PROCEDURES *(Consider each of the listed items when performing a fumigation.)*

MATERIALS

FUMIGATOR			PPQ
Tarpaulin	Tarpaulin Supports	Volatilizer	Gas Analazer
Sand Snakes	Fans	Heat Supply	Drierite
Water Snakes	Extension Cords	Exhaust Fans	
Loose Sand	2-3 Prong Plug Adapters	Sampling Tubes	Self Contained (SCBA) Breathing Apparatus
Burlap / Padding	Fumigant	Scale	Halide Detector
Masking Tape	Gas Introduction Line	Fumigation Placards	Tape Measure
Pesticide & Spray Equipment	T/C Gas Analyzer	SCBA - Self Contained Breathing Apparatus	Thermometer
			Gas Detector Kit and Detector Tubes

PROCEDURES *(SECTION III TREATMENT MANUAL)*

PREPARATION		FUMIGATION	
1. SITE SELECTION	3. TARPAULIN ENCLOSURE	4. TREATMENT SCHEDULE DETERMINATION	Introduction Rate
Ventilated Area	A. COVER	Plant Pest	Check for Leaks
Sheltered Area	Condition	Commodity Temperature	6. SAFETY
Impervious Surface	Air Space, Above Load	Space Temperature	Gas Detection Tests
Non-work Area	Floor Area 30 cm (12") Space Around Load	Volume Determination	7. CONCENTRATION READINGS
Proximity to Electrical Source	Overlap 45 cm (18") Border	Sorptive Commodity	T/C Gas Analyzer Standardization
Proximity to Commodity	B. SNAKES	Amount of Fumigant	Time Intervals
2. ARRANGEMENT OF COMMODITY & EQUIPMENT	Contact Along Sides	5. FUMIGANT INTRODUCTION	Gas Distribution
Stack Size Limitation	Contact Around Corners	Area Clear of Unauthroized Personnel	Maximum / Minimum
Air Space, Below and Between Load	Overlap 15 cm (6") Minimum	Cover condition	8. AERATION (MULTIPLE STACKS)
Placement of Tarp. Supports	C. SAND	Fan Operation	Exhaust Fan(s)
Placement of Padding	Perimeter	Contaminant Gases	Exhaust Tube(s)
Placement of Fans	D. ADHESIVE	Fumigant Cylinder Weight	Exhausted in a Non-fumigation Area
Placement of Gas Introdution Line(s)	Perimeter	Gas Line Connections	Negligible Gas Readings Before Tarpaulin Removal
Placement of Sampling Lines		Volatilizer Heated	Halide or Other Detector Tests

PPQ FORM 429 (Reverse) ☆ U.S. GOVERNMENT PRINTING OFFICE: 1997 417-294/60024

FIGURE A-1-3: Example of PPQ Form 429 (Fumigation Record) (Back)

Purpose

This form is to be used as a station record for all treatments conducted in approved chambers or in temporary enclosures (tarpaulin, in containers, truck vans, railroad cars, ships, warehouses, or other enclosures). Treatments conducted under temporary enclosures require minimum gas concentration readings be reported.

Important

Aircraft fumigation is not authorized.

Block	Instruction
1	Fill in.
2	Fill in scientific name(s) of pest or simply "precautionary" when fumigation is mandatory as a condition of entry or movement. Include station interception number(s) if fumigation is based on pest findings.
3-20	Fill in. In completing Block 12, if the commodity is a fruit or vegetable, enter the common name. The common name is more descriptive. If available, include the variety. By using common names and names of varieties, tolerances to the fumigant can be better predicted.
21	Fill in fumigant (for example, MB, CB, PH, EO, or SF), schedule number, dosage rate, and exposure period (4 lbs/1,000 ft^3 for 12 hours).
22	Fill in beginning temperatures in space under enclosure (a) and commodity temperature (b). Specify Centigrade or Fahrenheit.
23	Fill in type of thermal conductivity unit used (Fumiscope® or Gow-Mac®) and the serial number of the conductivity unit.
24	Fill in chamber, tarpaulin, structure, or type of carrier such as truck van, railroad car, or ship. If a container was used, indicate if covered by tarpaulin. Fill in type of tarpaulin used—single or multiple-use and the thickness (4 mil or 6 mil).
25	If treatment is conducted outside, fill in the weather conditions.
26	Fill in.
27	If commodity is treated under APHIS Section 18 Exemption, check "yes." If commodity is treated at label dosage or less, check "no."
28-30	Fill in.
31	If food or feed, check "yes." If nonfood/nonfeed, check "no."
32	Record time gas introduction started (a) and finished (b). Treatment does not start until gas is completely introduced in the chamber or enclosure.
33	When the fumigant dosage is calculated by weight, fill in the dosage to the nearest quarter pound. If liquid measures are needed, convert from weight to volume by using the conversion table in Appendix D.
34	If additional gas is required, note under Remarks (Block 40) and show calculations (Block 41).
35	Check appropriate box. Sample number refers to Block 7 on APHIS Form 2061 (Residue Sample for Food or Feed Product).
36	Record the date and time you take concentration readings. Treatment schedules specify when to take concentration readings.
37	Fumigants such as methyl bromide may be read and recorded directly from the T/C unit scale. However, readings for fumigants such as sulfuryl fluoride and ethylene oxide must be corrected to get the true concentration reading. Each T/C unit used for fumigants other than methyl bromide is calibrated with a correction factor. The factor is multiplied times the dial reading, to give the actual concentration. Record phosphine gas concentrations as ppm as determined by detector tubes. Specify where the gas sampling line was placed: space or commodity. Use at least three lines. Use additional lines as needed.
38	Fill in.
39	Fill in time as well as the reading. Refer to the section in the manual that is tabbed "Aeration" for guidelines.
40	Note any unusual events that occurred during the treatment. When it is necessary to abort a fumigation, details concerning the termination of the treatment should be reported in this block.

Block	Instruction
41	Show all calculations used in determining the volume of temporary enclosures. Also show calculations when additional gas is added.
42-43	Sign and date.
Reverse Side	Use as a check list.

Distribution

Give the original and one copy to your supervisor for review. The supervisor should keep the original for port files and send one copy to:

USDA, APHIS, PPQ, CPHST
Treatment Quality Assurance Unit
1730 Varsity Drive, Suite 400
Raleigh, NC 27606

PPQ Form 519 (Compliance Agreement)

Example

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE PROGRAMS

COMPLIANCE AGREEMENT

1. NAME AND MAILING ADDRESS OF PERSON OR FIRM
Mr. Tom Jones
Beat-A-Bug
3458 West 7th Street
Philadelphia, PA 19000

2. LOCATION
All piers/warehouses in the Philadelphia area involved with fresh fruit and vegetable importations

3. REGULATED ARTICLE(S)
Fresh produce entering under Quarantine 56

4. APPLICABLE FEDERAL QUARANTINE(S) OR REGULATIONS
Plant Quarantine Act of 1912
Federal Plant Pest Act of 1957

6. *I/We agree to the following:*
--To provide proof of current pesticide applicators certification upon demand.

--To provide a certified applicator at the fumigation site at times specified by PPQ.

--To provide all necessary equipment (including safety equipment) and labor. Labor and equipment are both subject to the approval of the PPQ certified applicator.

--To follow all safety requirements or procedures of the Occupational Safety and Health Act, Environmental Protection Agency, State, local, or additional requirements specified by the PPQ certified applicator including verification of the training of my employees actually working at the fumigation site.

--To follow all instructions and procedures required by PPQ in the planning, set up, and conduct of the fumigation.

--That the PPQ certified applicator will monitor/supervise the fumigation.

--That the PPQ certified applicator has the authority to approve or disapprove a fumigation at any point if the treatment is or will not be safe or effective or if any of the terms of this agreement are not met.

7. SIGNATURE
[signature]

8. TITLE
Fumigator

9. DATE SIGNED
September 1, 1992

The affixing of the signatures below will validate this agreement which shall remain in effect until cancelled, but may be revised as necessary or revoked for noncompliance.

10. AGREEMENT NO.
PENN-3-28

11. DATE OF AGREEMENT
September 2, 1992

12. PPQ OFFICIAL (Name and Title)
Victor S. Smith
Officer in Charge

13. ADDRESS
USDA-APHIS-PPQ
2432 Lakeview Drive, Room 10
Philadelphia, PA 19000
(215) 555-4980

14. SIGNATURE
[signature]

15. STATE AGENCY OFFICIAL (Name and Title)

16. ADDRESS

17. SIGNATURE

PPQ FORM 519
AUG. 1977

REPLACES PPQ 276, 519, 560, AND AGI 53, WHICH ARE OBSOLETE

FIGURE A-1-4: Example of PPQ Form 519 (Compliance Agreement)

Purpose

The PPQ Form 519 is a form that provides a signed, written agreement with fumigators to indicate their understanding of methods, conditions, and procedures necessary for compliance with regulations.

Instructions

Many PPQ ports maintain Compliance Agreements with commercial pesticide applicators. PPQ may maintain compliance agreements, however if they cancel an agreement, PPQ should not ban an exterminator from doing business, or applying regulatory treatments. PPQ may however, discontinue certification of a particular treatment that did not meet the required time, temperature, and concentration levels indicated in the treatment schedule. Similarly, PPQ may not want to begin monitoring a fumigation if the tarp appears inadequate and excessive leakage may lead to a safety problem.

Review compliance agreements at least annually, but preferably twice a year. Amend compliance agreements as appropriate.

If the establishment fails to abide by the conditions of the agreement, then the Port Director may cancel that agreement orally or in writing.

If you make an oral cancellation, confirm it in writing as soon as possible. The establishment has 10 days to appeal the cancellation. Appeals must be made to the Deputy Administrator.

Block	Instructions
1,8,9, 11-13	Fill in.
2	Fill in the location of the specific property(s) for which the agreement is signed.
3	Fill in the specific regulated articles to which the agreement applies.
4	Fill in the titles, parts, and subparts.
5	Check as appropriate.
6	Outline stipulations which apply to the fumigator for each quarantine or regulation affecting the fumigator. Make clear to the fumigator that stipulations in the compliance agreement do not preclude compliance with other sections of the quarantine or regulations. If space in Block 6 is inadequate for listing the stipulations, then write “see Attached Sheets.”
7	Have a responsible official of the fumigator’s sign.
10	Assign a compliance agreement number.
14	Have the PPQ Port Director sign.
15-17	Complete only when State is involved in cooperating with enforcing Federal quarantines.

Distribution

If:	Then:
Compliance agreement affects one work unit	GIVE original to the fumigator, and KEEP a copy for port files in the area where the fumigator is located
Compliance agreement affects more than one work unit	GIVE original to the fumigator, and GIVE copies to all work units affected by the compliance agreement, and KEEP a copy for port files in the area where the fumigator is located

PPQ Form 523 (Emergency Action Notification)

Example

U.S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

EMERGENCY ACTION NOTIFICATION

1. PPQ STATION | 2. DATE ISSUED
3. NAME OF AGRICULTURAL PEST | 4. DATE INTERCEPTED
5. SHIPPER
6. NAME AND QUANTITY OF ARTICLE
7. IDENTIFYING MARKS OR NUMBERS *(container no., B/L no., etc.)*
8. TO: *(Consignee or Owner)*
9. LOCATION OF ARTICLES
10. ORIGIN OF ARTICLES
11. CARRIER DATA
Name or ID
Point of Lading | Date of Arrival

Under § 105 of the Federal Plant Pest Act *(7 U.S.C. 150dd)*, the Plant Quarantine Act, as amended *(7 U.S.C. 151 et seq.)*, the Federal Noxious Weed Act of 1974 *(7 U.S.C. 2805)*, or Section 2 of the Act of February 2, 1903 *(21 U.S.C. III)*, and the regulations promulgated pursuant to these statutes, you are hereby notified, as owner or agent of the owner of said carrier and/or premises and/or articles, to apply remedial measures for an injurious agricultural pest as specified in item 3, in a manner satisfactory to and under supervision of an Agricultural Officer. Remedial measures shall be in accordance with the action indicated in item 12 as provided for in the applicable regulations, and shall begin within the specified time indicated in item 13.

AFTER RECEIPT OF THIS NOTIFICATION, ARTICLES AND/OR CARRIERS HEREIN DESIGNATED MUST NOT BE MOVED EXCEPT AS DIRECTED BY AN OFFICER.

CAUTION: Apply chemicals in accordance with all label instructions and applicable regulations.

12. ACTION

13. AFTER RECEIPT OF THIS NOTIFICATION BEGIN SPECIFIED ACTION WITHIN *(Specify No. hours or No. days)*
14. SIGNATURE OF OFFICER

15. ACKNOWLEDGEMENT OF RECEIPT OF EMERGENCY ACTION NOTIFICATION

I hereby acknowledge receipt of the foregoing notification.

SIGNATURE | TITLE | DATE & TIME | CITY & STATE

16. REVOCATION OF NOTIFICATION

ACTION TAKEN

SIGNATURE OF OFFICER | DATE

PPQ FORM 523 (NOV 83) *Replaces PPQ Form 523 (6/78) and PPQ Form 290 (5/77), which are obsolete.*

PART 1 - CONSIGNEE OR OWNER

FIGURE A-1-5: Example of PPQ Form 523 (Emergency Action Notification)

Purpose

PPQ Form 523 is issued for treatments and other remedial measures ordered for carriers, cargoes, or articles arriving in the United States or moving interstate. The PPQ Form 523 also serves as a means to communicate plant pest and animal disease risk situations between ports, Program Support, and International Services personnel in foreign countries.

Instructions

When a suspected pest is found, advise the owner, agent, or ship's captain that a suspected pest has been found. If identification is confirmed, quarantine action will be required. For ships, note the information on the PPQ Form 288 (Ship Inspection Report). Hold all cargo from infested holds pending determination. Take appropriate

safeguards to prevent pest dissemination for infestations of cargo or stores. If it is necessary to discontinue discharge of cargo from the vessel, promptly inform Customs.

Block	Instructions	
1,2,4	Fill in.	
3	Fill in the scientific and common name of the pest. Indicate if identification is tentative; however, final identification is required on copies sent to Program Support. List the interception number.	
5	Fill in the name and address of the firm sending shipment. Avoid the use of intermediate parties such as freight forwarders, etc.	
6	Fill in the name and quantity of article (include description on accompanying documentation and additional terms if needed to clearly describe the article). If plant material is involved, fill in the genus of the plant.	
7	Enter bill of lading, container numbers, air waybill number, vessel hold number, vehicle license number, etc.	
8	Fill in the consignee or owner and address. Use intermediate parties such as the broker or carrier if owner's name is unavailable.	
9	Fill in where the article is located, e.g., location of premises, pier, dock, container yard, hold space, etc.	
10	Fill in the origin of the article.	
11	Name or ID—	Fill in vessel name, airline and flight number, trucking firm and license number, railroad car number, container number, etc.
	Point of Lading—	Fill in foreign port, or place where loaded, e.g., Leghorn, Italy; Jeddah, Saudi Arabia; etc.
	Date of Arrival—	Fill in the date the article arrived at port or point where PPQ Form 523 is issued.
12	List action required; e.g., treatment schedule, return to origin. Include safeguards pending final quarantine action (if any). If more than one action is required, then list actions as a, b, c, etc. If an article is prohibited, then fill in that the article is prohibited per regulation (list title, part, and subpart from the CFR's), and any other reasons in addition to action required.	
13	"Begin Specified Action Within" means the actual beginning of a treatment or emergency action or a good faith effort to begin contract proceedings or preparation for the action. Fill in the time (number of hours or days) action must begin after receipt of this notice. Specify a time for complying with each action listed in Block 12, e.g., a) 2 hours; b) 48 hours.	
14	Sign in this Block.	
15	Obtain the signature of the owner, agent, or person having immediate jurisdiction over the carrier or articles. If someone other than the owner signs, state the name of the company.	
16	Fill in action taken. Be specific that actions listed in Block 12 were carried out. Explain any acceptable deviations from the actions listed in Block 12. Sign and date the original and the copy in the hands of the owner/agent. If the owner/agent copy is not available, then make a copy and deliver it to the owner/agent.	

Use the following table to determine if any special instructions apply:

If issuing PPQ Form 523 for:	And:	Then:
An infested vessel	The vessel is sailing without treatment	SEE special instructions that follow
	The vessel is sailing to a subsequent port for treatment	AMEND Block 16 of the Form to read "Ship authorized movement to (port) for treatment." FORWARD copies of the Form to the next port
	The structural design prevents an adequate fumigation	CONSULT your Regional Director for an alternate treatment and/or cleaning, and NOTE conditions on the Form 523, then GO to "Distribution"
	Treatment will be conducted at the port	GO to "Distribution"
Infested cargo	It is covered by an invalid, inaccurate, or improperly issued phytosanitary certificate, treatment certificate, or military customs certificate	ATTACH a copy of the document to the copy of the Form that you send to Program Support after the treatment is completed, then GO to "Distribution"
	Not covered by any of the certificates described in the cell above	GO to "Distribution"
Other than above	→	GO to "Distribution"

Special Instructions for Infested Vessels Sailing Foreign Without Treatment

When an infested vessel is allowed to sail foreign without treatment, type the following statement on the reverse side of the PPQ Form 523 and reference it in Block 12 on the face of the form.

"The requirements of the Emergency Action Notification shown on the front of this form are suspended upon condition that this vessel shall leave the territorial limits of the United States within ____ hours after receipt of this notice. This vessel shall not reenter any port in the United States unless it has been treated in accordance with the notification and certified by the person who applied the treatment. If the certificate is not presented to the PPQ officer when arriving at a port in the United States, or if the PPQ officer for any other reason is not satisfied that the infestation has been eliminated, the notification shall immediately become effective and treatment required."

Distribution

TABLE A-1-22: Determine Distribution of PPQ Form 523 (Emergency Action Notification)

If:	Then:
Part 1	GIVE to the owner or agent having immediate jurisdiction over the carrier or articles. In the case of vessels, give to the captain.
Part 2	KEEP for your port files.
Part 3	GIVE to the broker or agent (if more than one copy is needed, then make photocopies).
Part 4	SEND to Program Support within 5 days after completion of action. Include the final pest identification and the original of any accompanying documents that attest to actions taken at the point of origin (e.g., phytosanitary certificates, treatment certificates, military customs certificates, certificates of origin, etc.).
Other copies	SEND to Area Director at proposed destination of material for possible follow-up action. SEND to Regional Office or originating office as required locally. SEND to subsequent PPQ office if action is to be completed there (mail one copy, and send one copy accompanying the article or carrier) or if khapra beetle or snails are found on cargo or carrier.

see the Airport and Maritime Operations Manual for instructions on completing a PPQ Form 518.

PPQ Form 449-R (Temperature Recording Installation Report)

TEMPERATURE RECORDING INSTALLATION REPORT USDA-APHIS
(IN-TRANSIT COLD TREATMENT)
(Refer to PPQ Treatment Manual, Sec. III, Part 10)

1. NAME OF VESSEL			
2. PORT REPORTING	3. DATE OF INSPECTION	4. POINT OF INSPECTION	5. HULL NUMBER AND SHIPYARD
6. MANUFACTURER'S REP	7. ELECTRICAL CONTRACTOR	8. SHIP'S OFFICER	9. SHIPPING LINE

RECORDING INSTRUMENT

10. MAKE		22. MAKE	
11. SERIAL NO	12. MODEL NO	23. SERIAL NO.	24. MODEL NO.
13. SCALE DEFLECTION inch/F° mm/C°	14. PRINT INTERVAL	25. SCALE DEFLECTION inch/F° mm/C°	26. PRINT INTERVAL
15. TEMPERATURE RANGE to	16. CHART SPEED	27. TEMPERATURE RANGE to	28. CHART SPEED

TEMPERATURE SENSORS *(If Unsatisfactory, explain in item 34)*		**TEMPERATURE SENSORS** *(If Unsatisfactory, explain in item 34)*	
17. LOCATIONS ☐ Satisfactory ☐ Unsatisfactory	18. LABELING ☐ Satisfactory ☐ Unsatisfactory	29. LOCATIONS ☐ Satisfactory ☐ Unsatisfactory	30. LABELING ☐ Satisfactory ☐ Unsatisfactory
19. SIZE ☐ Satisfactory ☐ Unsatisfactory	20. REACTION TIME ☐ Satisfactory ☐ Unsatisfactory	31. SIZE ☐ Satisfactory ☐ Unsatisfactory	32. REACTION TIME ☐ Satisfactory ☐ Unsatisfactory

21. TEMPERATURE READINGS AT 0°C (32°F)

BULB NO.	TEST I	TEST II	TEST III	BULB NO.	TEST I	TEST II	TEST III

33. TEMPERATURE READINGS AT 0°C (32°F)

BULB NO.	TEST I	TEST II	TEST III	BULB NO.	TEST I	TEST II	TEST III

34. REMARKS

35. SIGNATURE | 36. DATE

PPQ FORM 449-R (MAR 92) *(Local Reproduction Authorized)* *Replaces APHIS FORM 8049-R (MAR 90), which is obsolete.*

FIGURE A-1-6: PPQ Form 449-R (Temperature Recording Installation Report)

PPQ Form 203 (Foreign Site Certificate of Inspection and/or Treatment)

U.S. DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE PLANT PROTECTION AND QUARANTINE **FOREIGN SITE CERTIFICATE OF INSPECTION AND/OR TREATMENT**	1. CERTIFICATE NO.	2. COUNTRY OF ORIGIN
	3. DATE LOADED	4. FOREIGN PORT OF EXPORT
5. CARRIER IDENTIFICATION		6. U. S. PORT OF ENTRY
7. SHIPPER *(Name & Address)*	8. CONSIGNEE *(Name & Address - Include Zip Code)*	

9. COMMODITY	10. NO. CONTAINERS *(Identify as box, sack, ½ Bruce box, flat, cardboard box, etc.)*	11. CONTAINER IDENTIFICATION MARKS

12. LOCATION OF INSPECTION AND/OR TREATMENT	13. DATE

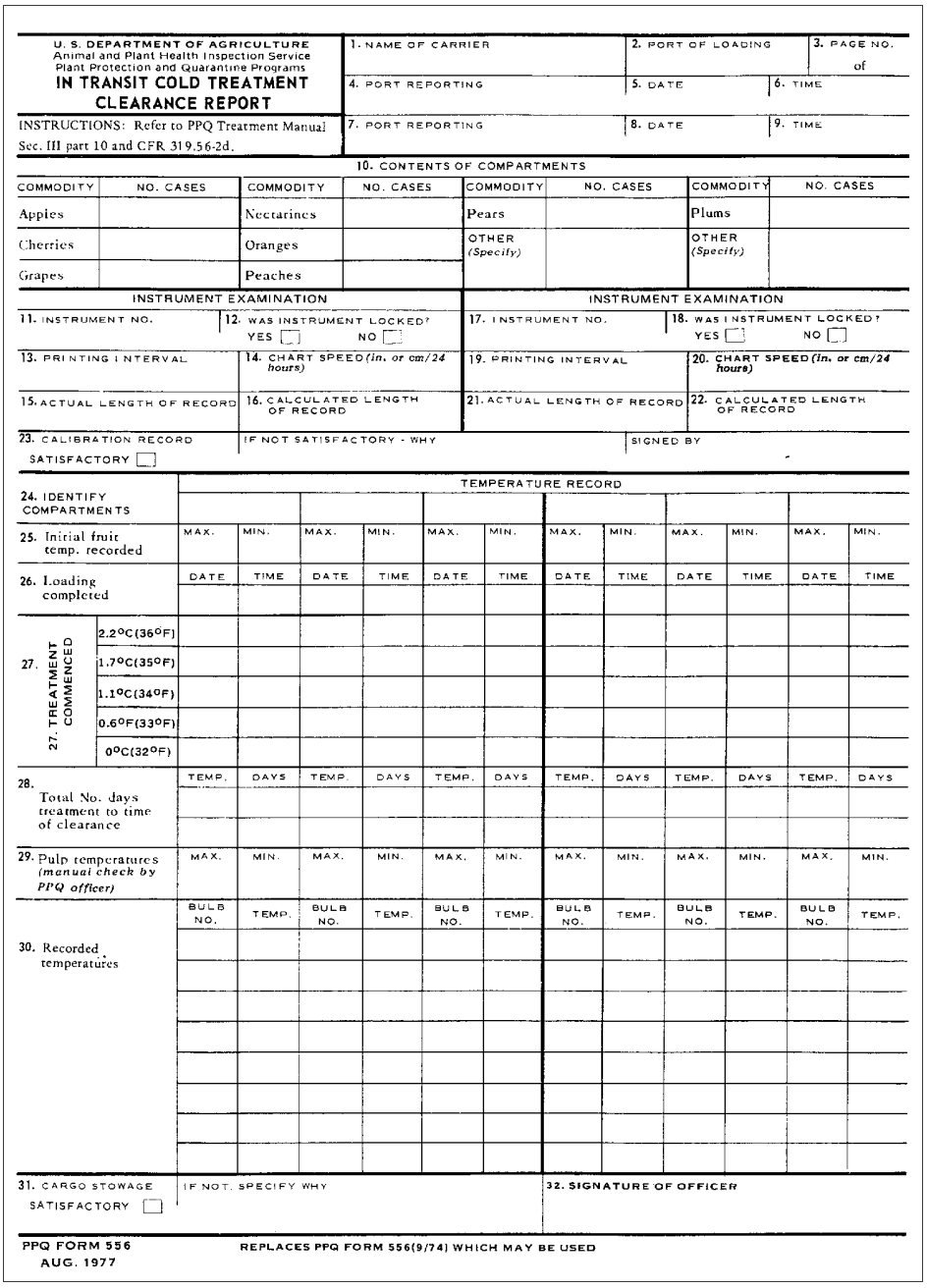
This certifies that the shipment described above has been inspected and/or treated in accordance with agricultural requirements for entry into the United States.

14. SIGNATURE OF PLANT PROTECTION AND QUARANTINE OFFICER	15. DATE ISSUED

PPQ FORM 203
(AUG 78)

FIGURE A-1-7: PPQ Form 203 (Foreign Site Certificate of Inspection and/or Treatment)

PPQ Form 556 (In Transit Cold Treatment Clearance Report)



U. S. DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Plant Protection and Quarantine Programs
IN TRANSIT COLD TREATMENT CLEARANCE REPORT

INSTRUCTIONS: Refer to PPQ Treatment Manual Sec. III part 10 and CFR 319.56-2d.

1. NAME OF CARRIER | 2. PORT OF LOADING | 3. PAGE NO. of
4. PORT REPORTING | 5. DATE | 6. TIME
7. PORT REPORTING | 8. DATE | 9. TIME

10. CONTENTS OF COMPARTMENTS

COMMODITY	NO. CASES	COMMODITY	NO. CASES	COMMODITY	NO. CASES	COMMODITY	NO. CASES
Apples		Nectarines		Pears		Plums	
Cherries		Oranges		OTHER (Specify)		OTHER (Specify)	
Grapes		Peaches					

INSTRUMENT EXAMINATION			INSTRUMENT EXAMINATION		
11. INSTRUMENT NO.	12. WAS INSTRUMENT LOCKED? YES ☐ NO ☐		17. INSTRUMENT NO.	18. WAS INSTRUMENT LOCKED? YES ☐ NO ☐	
13. PRINTING INTERVAL	14. CHART SPEED (in. or cm/24 hours)		19. PRINTING INTERVAL	20. CHART SPEED (in. or cm/24 hours)	
15. ACTUAL LENGTH OF RECORD	16. CALCULATED LENGTH OF RECORD		21. ACTUAL LENGTH OF RECORD	22. CALCULATED LENGTH OF RECORD	
23. CALIBRATION RECORD SATISFACTORY ☐	IF NOT SATISFACTORY - WHY		SIGNED BY		

24. IDENTIFY COMPARTMENTS	TEMPERATURE RECORD											
25. Initial fruit temp. recorded	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.
26. Loading completed	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
27. TREATMENT COMMENCED 2.2°C(36°F)												
1.7°C(35°F)												
1.1°C(34°F)												
0.6°F(33°F)												
0°C(32°F)												
28. Total No. days treatment to time of clearance	TEMP.	DAYS	TEMP.	DAYS	TEMP.	DAYS	TEMP.	DAYS	TEMP.	DAYS	TEMP.	DAYS
29. Pulp temperatures (manual check by PPQ officer)	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.
30. Recorded temperatures	BULB NO.	TEMP.	BULB NO.	TEMP.	BULB NO.	TEMP.	BULB NO.	TEMP.	BULB NO.	TEMP.	BULB NO.	TEMP.

31. CARGO STOWAGE SATISFACTORY ☐ | IF NOT, SPECIFY WHY | 32. SIGNATURE OF OFFICER

PPQ FORM 556 AUG. 1977 | REPLACES PPQ FORM 556(9/74) WHICH MAY BE USED

FIGURE A-1-8: PPQ Form 556 (In Transit Cold Treatment Clearance Report)

APHIS Form 205-R (Instructions and Worksheet for Calibrating Portable Temperature Sensors)

INSTRUCTIONS AND WORKSHEET FOR CALIBRATING PORTABLE TEMPERATURE SENSORS

USDA - APHIS

1. DATE		
2. NAME OF FACILITY	3. SIGNATURE OF PERSON CALIBRATING SENSORS	4. NAME OF PERSON CALIBRATING SENSORS *(Type or Print)*

INSTRUCTIONS

These instructions are for calibrating the portable temperature sensors that will be used in performance tests of hot water tanks.

(A) Assign each portable sensor a number. *(Write sensor numbers on pieces of duct tape or tag, and attach them near the "dry" end of each sensor.)*

(B) Submerge the "wet" end of the sensors into a circulating hot water bath in a temperature range of 115° to 120°F *(46.1° to 48.9°C)*, in close proximity to the bulb of a submersible certified glass mercury thermometer. Both must be submerged to the same depth. The mercury thermometer *(with demarcations readable to the nearest tenth of a degree)* shall be used as the standard against which the portable sensors are to be compared.

(C) Record the temperatures obtained from each portable sensor and the mercury thermometer, in succession. Compute the difference in the two temperatures, if any, and record this also.

(D) If the temperature shown by the portable sensor falls within five-tenths of a degree *(F) (or +/- 0.3°C)* of the true temperature shown on the certified mercury thermometer, then this sensor is considered to be within the tolerance, and may be used in the performance test. Any sensors reading outside of this range do not meet APHIS standards for accuracy, and should not be used. Recommend that they be destroyed.

TEMPERATURE *(Specify °C or °F)*

5. PORTABLE SENSOR NO.	6. SENSOR READING	7. MERCURY READING	8. DIFFERENCE *(Add/Subtract)*	9. REMARKS

RETURN COMPLETED FORM TO THE METHODS DEVELOPMENT CENTER THAT WILL ISSUE A CERTIFICATE.

APHIS FORM 205-R
(NOV 93)

FIGURE A-1-9: APHIS Form 205-R (Instructions and Worksheet for Calibrating Portable Temperature Sensors)

APHIS Form 206-R (Test of the Accuracy of the Permanent RTD Sensors Installed in Hot Water Tanks)

TEST OF THE ACCURACY OF THE PERMANENT RTD SENSORS INSTALLED IN HOT WATER TANKS

USDA - APHIS

1. DATE	

2. NAME OF FACILITY	3. SIGNATURE OF PERSON TESTING SENSORS	4. NAME OF PERSON TESTING SENSORS *(Type or Print)*

INSTRUCTIONS

These instructions describe the procedure for testing the accuracy of the permanent RTD temperature sensors installed in the hot water tanks, which are wired to a recorder located in the Control Room.

(A) First, calibrate all available portable sensors against the certified glass mercury thermometer standard. *(See separate instructions and worksheet for performing this procedure - APHIS FORM 205.)*

(B) Select the portable sensor that shows the least deviation from the certified mercury standard. This particular sensor will now be used as a tool for testing the accuracy of each of the permanent RTD sensors installed on the tanks.

(C) Using a 6-foot rod *(such as a broom handle or PVC pipe)* and duct tape, fasten the "wet" end of the portable sensor wire to one end of the rod, being careful not to cover the metal sensor tip with tape. *(The use of a metal rod should be avoided because if it comes in direct contact with the portable sensor, it may cause false readings.)* Tape the sensor wire also to the center, and to the opposite end of the rod, to remove the slack.

(D) Raise the water temperature in the tanks to 115°F to 120°F *(46.1° to 48.9°C)*, and run the pump to ensure uniform distribution of heat. Inspect the sides of the tank to locate the exact position of each permanent RTD sensor. Using the portable sensor and rod assembly, dip it into the hot water until the portable sensor comes in close proximity to the tank's sensor. ***(NOTE:** Each basket position should have its own sensor.)* Plug the portable sensor into a hand-held digital thermometer, and read the display. Compare this number with the display on the data logger or strip chart recorder in the control room. *(You may need an assistant for this purpose.)* Record the results from the chart on this form. Repeat the procedure for each permanent sensor in the tank.

(E) Decision: If the temperature shown on the display in the control room matches the temperature shown on the hand-held digital thermometer *(as calibrated)*, then the permanent sensor in the tank is acceptable. If the two temperatures do not match exactly, but are within five-tenths of a degree *(F)* of each other *(+/- 0.3°C)*, then this small amount of deviation is considered to be within tolerance. Any permanent sensors that fail this standard must be repaired or replaced.

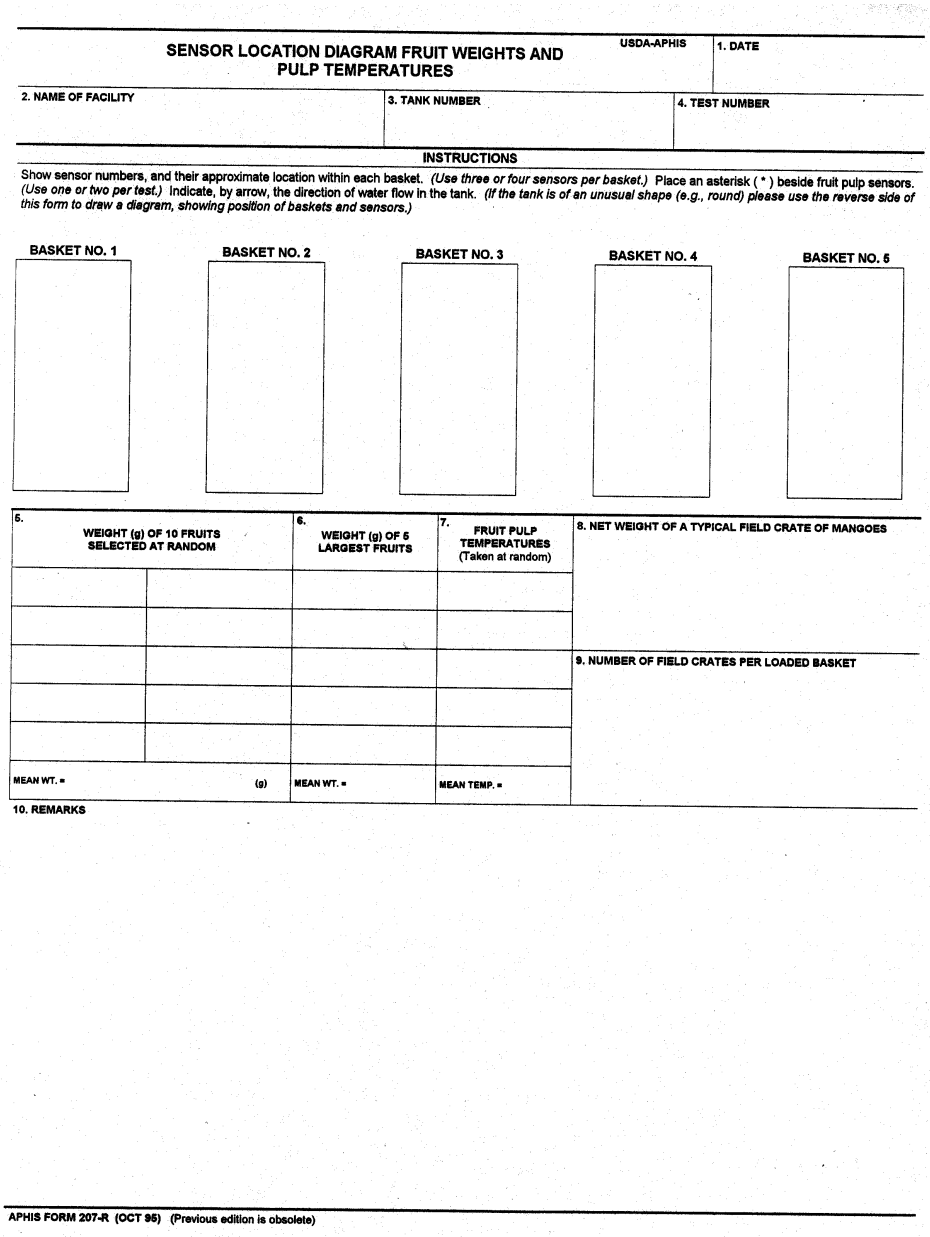
5. HAND-HELD DIGITAL THERMOMETER USED FOR THE STANDARD *(Portable Sensor Number Used: _____.)*				6. MAKE & MODEL OF THE RECORDER USED IN CONTROL ROOM FOR TEMPERATURE DISPLAY		
7. TANK NO. AND PERMANENT RTD SENSOR NO. *(Basket Position)*	8. READING OBTAINED *(°F or °C) (Hand-held)*	9. CORRECTION FACTOR *(Determined Previously)* (+/-)	10. TRUE READING (°F or °C)	11. READING OBTAINED *(°F or °C) (In Control Room)*	12. DIFFERENCE BETWEEN COLUMN 10. AND COLUMN 11. (°F or °C)	13. REMARKS

RETURN COMPLETED FORM TO THE METHODS DEVELOPMENT CENTER THAT WILL ISSUE A CERTIFICATE.

APHIS FORM 206-R (NOV 93)

FIGURE A-1-10: APHIS Form 206-R (Test of the Accuracy of the Permanent RTD Sensors Installed in Hot Water Tanks)

APHIS Form 207-R (Sensor Location Diagram Fruit Weights and Pulp Temperatures)



SENSOR LOCATION DIAGRAM FRUIT WEIGHTS AND PULP TEMPERATURES

USDA-APHIS

1. DATE

2. NAME OF FACILITY

3. TANK NUMBER

4. TEST NUMBER

INSTRUCTIONS

Show sensor numbers, and their approximate location within each basket. *(Use three or four sensors per basket.)* Place an asterisk (*) beside fruit pulp sensors. *(Use one or two per test.)* Indicate, by arrow, the direction of water flow in the tank. *(If the tank is of an unusual shape (e.g., round) please use the reverse side of this form to draw a diagram, showing position of baskets and sensors.)*

BASKET NO. 1 | BASKET NO. 2 | BASKET NO. 3 | BASKET NO. 4 | BASKET NO. 5

5. WEIGHT (g) OF 10 FRUITS SELECTED AT RANDOM		6. WEIGHT (g) OF 5 LARGEST FRUITS	7. FRUIT PULP TEMPERATURES (Taken at random)	8. NET WEIGHT OF A TYPICAL FIELD CRATE OF MANGOES
				9. NUMBER OF FIELD CRATES PER LOADED BASKET
MEAN WT. =	(g)	MEAN WT. =	MEAN TEMP. =	

10. REMARKS

APHIS FORM 207-R (OCT 95) (Previous edition is obsolete)

FIGURE A-1-11: APHIS Form 207-R (Sensor Location Diagram Fruit Weights and Pulp Temperatures)

APHIS Form 208 (Performance Test for Mango Hot Water Immersion Tank)

USDA-APHIS

PERFORMANCE TEST FOR MANGO HOT WATER IMMERSION TANK

1. DATE OF TEST	
2. NAME OF FACILITY	3. LOCATION
4. NAME OF FACILITY MANAGER (Type or print)	
5. TELEPHONE NUMBER ( )	6. FAX NUMBER ( )
7. FRUIT VARIETY	8. STAGE OF RIPENESS

9. TEMPERATURES AT START OF TEST

9A. THERMOSTATIC SET POINT	9B. WATER IN THE TANK	9C. FRUIT PULP (Average)	9D. AMBIENT AIR

10. SIGNATURE OF INSPECTOR	11. NAME OF INSPECTOR (Type or print)

12. NOTES

BASKET NO.: _____ TANK NO.: _____ TEST NO.: _____

Readings taken at specific times (minutes) before calibration adjustment (if any). Use 1 or 2 pulp sensors per tank. Indicate pulp sensors with an asterisk (*)

PORTABLE SENSOR NO. (Use at least 3)	CALLIBRATION ADJUSTMENT		0-1	1-2	2-3	3-4	5	30	60	75	90
		TIME									
		TEMP.									
		TIME									
		TIME									
		TIME									
		TEMP.									
		TIME									
		TEMP.									

APHIS FORM 208 (OCT 95) (Previous edition is obsolete) Page 1 of 2

Calibration of Temperature Probes (Cold Treatment)

CALIBRATION OF TEMPERATURE PROBES

Vessel: ____

Date of Calibration: ________________ Date Loaded: ______________

Hatch & Compartment	Temperature Probe No.	Calibration at 0.0°C			Probe Temperature of Fruit at Completion of Loading
		Test #1	Test #2	Correction °C/°F	

Signature: ____

FIGURE A-1-12: Calibration of Temperature Probes (Cold Treatment)

Location of Temperature Sensors in Containerized Cargo (Cold Treatment)

LOCATION OF TEMPERATURE SENSORS IN CONTAINERIZED CARGO

NAME OF VESSEL _____

CONTAINER NUMBER _____

PROBE 1 _____

_____

_____

PROBE 2 _____

_____

_____

PROBE 3 _____

_____

_____

SIGNATURE: _____ DATE: _____

TITLE: _____

FIGURE A-1-13: Location of Temperature Sensors in Containerized Cargo (Cold Treatment)

General Requirements for Approval of Integral Containers Used for Cold Treatment

- Containers must have adequate refrigeration, insulation, and thermostatic control to precool and uniformly hold fruit temperatures at 2.2 C (36 F) or below for the entire treatment period.
- Standards for Temperature Recording Instruments
- Recording instruments to be used for cold treatments conducted in self-refrigerated containers must be approved by the Oxford Plant Protection Center. When applying for approval, the specifications of the recorder and sensors must be submitted.
- The readings of the instrument have to be accurate to within plus or minus 0.30 C, or plus or minus 0.50 F of the true temperature range of +27 F to +37 F, with a resolution of 0.10 F or C.
- Sensors also will have an outer sheath of 0.25 inch (6.4 rom) diameter or less. The sensing element must be located within the first inch (2.5 cm) of the sensor.
- Sensors must be capable of collecting temperature data at least once every hour, and recording or storing data for up to 30 days.
- System should have a visual display so that temperatures can be reviewed manually during the treatment, and for ease of calibration.
- Printout must identify each sensor and indicate time and temperature. An identification number has to be printed so that the recorder and printout can be matched.
- If the recorder is to be carried inside the container, the data should be accessible without opening the container.
- At least three sensors are necessary for each container.